



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
JOHN F. KENNEDY FEDERAL BUILDING
BOSTON, MASSACHUSETTS 02203-0001

April 18, 1997

Jerry Perez, NEPA Planner
Green Mountain National Forest
Rochester Ranger District
RD 2, Box 35
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William F. Lawless, P.E., Director
Regulatory Division
U.S. Army Corps of Engineers
New England Division
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Waltham, Massachusetts 02254

Dear Mr. Perez and Mr. Lawless:

The Environmental Protection Agency (EPA) has reviewed the February 1997 Draft Environmental Impact Statement (DEIS) entitled *The Development of Snowmaking Water Impoundments at Waterville Valley Ski Resort*. This letter presents our evaluation and comments in accordance with our responsibilities under the National Environmental Policy Act (NEPA), Section 309 of the Clean Air Act and Section 404 of the Clean Water Act. Specific comments related to the text of the EIS are attached (attachment 1).

The Waterville Valley Ski Resort, Inc. (WVSR) proposes to construct four ponds with a combined capacity of 130 million gallons (MG) to store water for snowmaking at Mt. Tecumseh. The water would be drawn from the Mad River through an eighteen inch diameter pipe and discharged into the storage ponds to be used for snowmaking. The proposed project would increase the annual volume of water taken from the River from 130 MG to 231 MG and the maximum rate of withdrawal would increase from 2,700 to 4,700 gallons per minute (GPM). However, creation of the storage ponds would enable WVSR to capture water during higher flow periods and thus maintain a greater minimum flow in the Mad River. As part of the proposal, WVSR would discontinue its existing practice of drawing water for snowmaking from Corcoran's Pond and treated effluent from the Waterville Valley Advanced Wastewater Facility.

We commend the Forest Service for producing a concise and thorough document. We also appreciate the close coordination provided by both the Forest Service and the Corps of Engineers during the environmental process to date. The DEIS clearly describes the



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project, the alternatives evaluated and the environmental impacts that would result from the proposed action. The project would, if constructed as proposed, both benefit and harm the environment. Minimum flows in the Mad River would increase from 0.50 csm to 0.75 csm which should benefit in-stream fisheries. However, the project would directly destroy 8.3 acres of wetlands for construction of the snowmaking ponds.¹

The environmental setting for this proposal is within the 61 square mile watershed of the Mad River. The river itself flows southwesterly from Greeley Ponds and supports resident trout populations, and non-game fish species such as longnosed dace and slimy sculpin (DEIS, III-14). Moreover, the river serves as an important area for rearing of Atlantic salmon for use in the Merrimack River salmon restoration program. The Mad River and other waters in the project area are classified as Class B which means suitable for fishing, swimming and other recreational purposes.

The wetlands in the project area function primarily to provide wildlife habitat and to maintain water quality. A variety of songbirds, waterfowl, amphibians and mammals frequent the area including such species as white throated sparrow, dark-eyed junco, black duck, pickerel frog, wood frog, beaver, white-tailed deer and moose. The wetland/upland complexes at the proposed storage pond locations provide good quality wildlife habitat. The area in the vicinity of proposed pond site #2 is perhaps the most valuable from a habitat perspective.

Analysis of Alternatives

The challenge presented by the WVSR proposal is to decide how to satisfy the basic project purpose at the least environmental cost. The federal agencies involved with this project--the Forest Service, the Corps of Engineers, the Fish and Wildlife Service and EPA--should share an interest in achieving this result. Doing so requires examining a range of alternatives in light of how each affects the environment and performs in terms of meeting the basic project purpose. The §404(b)(1) guidelines allow a permit to issue only for the least environmentally damaging practicable alternative or LEDPA [see generally 40 CFR 230.10(a)].

The DEIS describes the purpose of the proposed action as providing WVSR with a "reliable and plentiful source of water for snowmaking in order to meet the goal of 100% ski trail coverage three times during the winter in 95% of the years, enabling a quality ski experience...". In order to evaluate the practicability of

¹The DEIS also describes the issues related to air quality, consistency with the management objectives of the White Mountain National Forest and noise. We agree with the findings in the DEIS that the project would not likely result in any serious or lasting impacts of concern in these areas.

alternatives as required under §404, the Corps establishes a "basic project purpose." A purpose defined too narrowly or with too much specificity will constrain the alternatives analysis; one defined too broadly may make the range of alternatives unmanageably large. It has been well established in the §404 program that the basic project purpose should be defined to reflect the generic function of the activity rather than the specific project criteria of the applicant (on the theory that if the underlying purpose can be achieved without destroying wetlands or other waters of the U.S., then it should be).

In the WVSR case, the Corps in June 1996 determined the basic purpose to be developing "a water supply to enable the Waterville Valley Ski Area to support a snowmaking system that will allow them to be competitive with other New England ski resorts."² EPA concurs with this formulation; we explicitly do not agree that the specific quantitative goal (100% coverage, three times a season in 95% of the years) has to be met in order for an alternative to be viewed as practicable.

After exploring and discarding a number of potential alternatives, the DEIS portrays in detail four major choices--a no action alternative and three different combinations of snowmaking ponds.³ While these four alternatives may not necessarily be the only feasible options, we believe they present a reasonable range of choices for consideration as NEPA and §404 require.

The "no action" alternative would result in WVSR continuing its existing snowmaking operation. EPA agrees that this alternative does not qualify as the LEDPA because it appears neither practicable nor less environmentally damaging. It would fail to improve the WVSR snowmaking capability and, based on the information contained in the DEIS, could prevent the ski area from effectively competing with other New England areas in the future.

With respect to environmental impacts, the no action alternative would avoid the loss of wetlands but would retain a lower minimum flow in the Mad River than the other choices under consideration. The threshold question is whether it is less damaging to incur some wetland impacts in exchange for increasing the minimum flow to 0.75 csm or remain at 0.50 csm and avoid the wetland damage. Based on

²This purpose allows considerations other than construction of storage ponds (e.g., withdrawal of groundwater) but such options are not practicable in this case based upon the information presented in the DEIS.

³These three combinations all involve construction of one or more ponds in the same area southeast of the ski area. Six other sites for pond creation were evaluated during the development of the DEIS but were eliminated as not being feasible or less environmentally damaging (DEIS, II-14 to II-24).

discussions with the U.S. Fish and Wildlife Service and our own review, we believe that the proposed shift from direct river withdrawal in favor of increased pond capacity would, on balance, benefit the aquatic environment. We therefore believe that the no action alternative causes greater environmental damage than any of the three construction options discussed below.

Alternatives two and three as presented in the EIS are practicable. Each would provide WVSR with a 130 MG water supply and meet the basic project purpose established by the Corps. Both alternatives virtually meet the applicant's specific objective as each would allow 100% trail coverage three times a season in 91% of the years. Four new impoundments would be constructed under each alternative with ponds #3A, #3B and #5 common to both; alternative two includes pond #2 whereas alternative three adds pond #4.

Alternative four, the remaining option treated in detail in the EIS, would involve construction of pond #5 only. This would provide 72.5 MG of new capacity. This alternative would fall short of the applicant's specific objective because while it would provide 100% trail coverage, three times a season it would do so in 80% of the years as compared to 91% of the time under alternatives two and three. Alternative four nevertheless significantly boosts snowmaking production over the current state which achieves the coverage goal an average of 68% of the time. It is not clear why alternative four would not meet the basic project purpose as formulated by the Corps. For example, estimated annual "skier visits," currently at 280,000, would be expected to increase under alternative four to 313,000 (under alternatives two and three it projects to 346,000). It seems plausible that the improvements under this option, while less than desired by the project proponents, would nevertheless be sufficient for WVSR to remain competitive. We therefore consider alternative four a putatively practicable alternative.⁴

The other element of the LEDPA test pertains to the extent of environmental damage. Alternatives two, three and four all raise the minimum flow in the Mad River (0.75 csm). However, the alternatives differ in terms of wetland damage: Alternative two would impact 8.2 acres; alternative three 11.4 acres; and alternative four 4.2 acres. Based on the information in the DEIS and discussions with Corps and FWS staff, we do not believe that alternatives two and three differ identifiably in terms of impact. While alternative three presents an opportunity to avoid the

⁴Moreover, it might be possible to augment alternative four by retaining features of the current system proposed to be abandoned (e.g., use of treated effluent and/or Corcoran's Pond) for use during periods of critical snow shortages. Another possibility would be an approach of moving ahead with alternative four at the present time and then reexamining the need for additional capacity after several years.

somewhat higher value habitat located in the vicinity of pond #2, it does so at the cost of greater direct wetland impact. It appears to offer no environmental advantages over the applicant's preferred choice, alternative two.

Alternative four would avoid direct adverse effects to four acres of wetland. On the other hand, the borrow material to construct alternative four would (as with alternatives two and three) be obtained from the hillside near the proposed location for pond 2. Thus, although alternative four reduces the direct wetland losses by half, it may do little to lessen the indirect impacts to aquatic values associated with borrow removal. Moreover, these indirect impacts would occur in the area identified as having the greatest value for wildlife. In light of these factors, we understand that the Corps preliminary view is that the adverse impacts of alternative four do not differ meaningfully from alternatives two and three.⁵ However, it does reduce direct wetland impacts by nearly half. Moreover, we note that alternative four needs 60% less borrow material than alternative two (97,000 cubic yards compared to 245,000 cubic yards). It might be more feasible to obtain borrow from another area than the pond #2 location given the reduced volume needed under alternative four; if so, the environmental values of this area could be better protected. If we accept the somewhat implausible proposition that the area near pond #2 is the *only* feasible source of borrow material for the project, the fact that less material is needed may provide an opportunity to design the removal operation in a fashion to that lessens the adverse impacts. Even without any additional modifications, alternative four is, according to the DEIS, the least damaging to wildlife ("Given the much smaller area of irreversible project development under this alternative, adverse impacts on wildlife habitat are expected to be slight compared with those of the other two action alternatives." DEIS, IV-36).

Mitigation

The applicant have worked diligently to identify compensatory mitigation opportunities in the project area. As a result of these efforts, it proposes two options to compensate for wetland impacts. Under the first option, about one acre of wetland would be restored by relocating a cross country ski trail; a 2.3 acre wetland site would be created at an old log landing area; and an attempt would be made to create roughly four acres of wetland with an upland buffer at a sand and gravel pit adjacent to the Pemigewasset River.

The second option would involve an attempted creation of about eight acres of wetland at the sand and gravel pit adjacent to the

⁵We also realize that the Corps may not necessarily believe that Alternative four is practicable.

Pemigewasset River. As with the first option, an upland buffer would be provided.

We believe either one of these choices could provide the framework for an acceptable compensatory mitigation plan. Our inclination at present is that the second option holds more promise because of the greater benefits typically provided at larger mitigation sites. In addition, we believe the prospect of benefiting the wildlife populations most likely to be harmed by the proposed project is greater under option two.

Summary and Recommended Next Steps

EPA supports improvements to the snowmaking system at WWSR to enable the ski area to remain competitive in the coming years. We agree the no action approach is neither practicable nor less environmentally damaging as compared with the other alternatives under active consideration. In addition, EPA does not object to eliminating alternative three since that option appears to offer little or no environmental advantage over alternative two. However, at present EPA is unconvinced that alternative four should be dropped from consideration. It appears to be a potentially practicable and less environmentally damaging alternative within the meaning of the §404(b)(1) guidelines.

We recommend that alternative four be scrutinized more carefully to determine whether or not it might constitute the LEDPA with particular attention given to the following aspects:

(1) An explanation of whether or not this alternative would meet the basic project purpose as formulated by the Corps. (Would WWSR cease to be competitive if that alternative were implemented?)

(2) Whether alternative four can be augmented in some fashion to increase its appeal to the project proponents.

(3a) A second look at the feasibility of obtaining all or part of the borrow material from offsite sources in light of the reduced material needs associated with alternative four.

(3b) If offsite sources cannot be utilized, then an evaluation of whether the onsite excavation can be conducted in a fashion to reduce the short- and long-term impacts at the pond #2 location.

Regardless of the final alternative selected, we recommend pursuing mitigation option two as the most promising approach to offset unavoidable wetland impacts associated with the project.

We hope these comments and suggestions are useful as the project continues through the environmental review process. In accordance

with our national system we rate this project as EC-2 ("Environmental Concerns-Insufficient Information"); please see the enclosed sheet (attachment 2) for an explanation of this rating.

EPA appreciates the exemplary job the Forest Service has done in coordinating the development of this DEIS with the environmental review agencies. We stand ready to work with both the Forest Service, the Corps and Waterville Valley to address the issues raised in this letter and we are confident that they can be resolved in a timely manner. In the meantime, should have any questions about these comments, feel free to contact either Elizabeth Higgins (617-565-3422) or Doug Thompson (617-565-3480).

Sincerely,



John P. DeVillars
Regional Administrator

Attachments

cc: M. Bartlett, FS, USFWS
M. Abair, VTFO, USCOE

Attachment 1

Specific Comments

S-15: What is the basis for concluding that skiers disproportionately stay away from WVSR because snowmaking coverage cannot be restored quickly enough after thaws or lack of snowfall?

S-16: How was the loss of 6,000-9,000 skier visits/month determined?

I-9: Same question as for page S-15.

I-10: How does the statement in footnote 15 (that the ski area receives a higher proportion of destination visitors than the average New Hampshire ski area) square with the assertions elsewhere in the DEIS regarding WVSR's lack of ability to compete effectively?

II-5: The sentence which begins, "Additionally, Section 404(b)(1) of the EPA guidelines indicate that..." should read: "Additionally, the EPA Section 404(b)(1) guidelines requires that...".

II-10: As indicated in the comment letter, EPA does not agree that 100% trail coverage should be a pass/fail requirement in determining practicability for §404 purposes.

II-35: What is a "recreation channel?"

III-34: The exact location of any confirmed or suspected active vernal pools should be identified.

III-42: Will either of the two "more or less" perennial streams be adversely affected under the alternatives under consideration?

III-56: Should the reference to "Table III-12" in footnote 18 actually read "Table III-14?"

IV-14: We understand that under any of the construction alternatives water could be withdrawn at any time of the year so long as the flow in the Mad River exceeds 0.75 csm and the storage ponds are not full. It would be helpful if the FEIS could portray an expected flow regime for the Mad River under both the existing condition (i.e., no action alternative) and under each of the construction alternatives. This would enable us to assess the effects of each alternative during times other than low flow.